Chap. 1

ex 10. By the generalized basic principle of counting we have.

\[ 26 \times 26 \times 10^5 = 67,600,000. \]

(b) \[ 26 \times 25 \times 10 \times 9 \times 8 \times 7 \times 6 = 19,656,000. \]

ex 16.

(a) 67, 78, 4E

27 or 28 or 2E. Hence.

\[ C_6^2 + C_7^2 + C_4^2 = 42 \text{ possibilities.} \]

(b) \[ 6 \times 7 + 6 \times 4 + 7 \times 4 = 94. \]

ex 22. There are \( \frac{4!}{2!1!1!} \) paths from A to the
dotted point and \( \frac{3!}{2!1!} \) from the circled point
to B.

Hence, there are \( \frac{4!}{2!1!1!} \times \frac{3!}{2!1!} \) paths from
A to B.